LBP treatment rates. Wilcoxon signed-rank tests were used to compare study period direct (medical and drug) costs from third-party payer perspective. **RESULTS:** During the 6-month study period, duloxetine-treated patients vs. controls had significantly lower rates of other pharmacological therapy (34.2% vs. 43.4% narcotic opioids, p = 0.004; 30.4% vs. 43.2% NSAIDs, p < 0.001; 17.4% vs. 26.2% muscle relaxants, p = 0.001; 10.6% vs. 20.4% corticosteroids, p < 0.001) and non-invasive therapy (16.4% vs. 35.6% chiropractic therapy, p < 0.001; 13.0% vs. 34.2% physical therapy, p < 0.001). Duloxetine-treated patients were also significantly less likely to have a back surgery during the study period compared with controls (0.4% vs. 2.0%, respectively; p = 0.021). Average 6-month direct costs were not significantly different between duloxetine-treated patients and controls ($3554 vs. $3637, respectively). **CONCLUSIONS:** Duloxetine treatment in LBP patients vs. other non-surgical treatment was associated with a lower surgery rate as well as reduced rates of other non-surgical therapies without significant differences in direct costs.

PSY32

HEALTH CARE UTILIZATION AND FACTOR COST IN HEMOPHILIA

Zhou ZY[1], Globe D[2], Ullman M[3], Baker J[4], Koerper M[5], Gwadry-Sridhar F[6], Wu J[1], Forsberg A[7], Shapiro A[8], Trawinski B[8], Duncan N[8], Johnson KA[1]
[1]University of Southern California, Los Angeles, CA, USA, [2]Amgen, Thousand Oaks, CA, USA, [3]Gulf States Hemophilia and Thrombophilia Center, Houston, TX, USA, [4]University of California, Los Angeles, Los Angeles, CA, USA, [5]University of California, San Francisco, San Francisco, CA, USA, [6]University of Western Ontario, London, ON, Canada, [7]New England Hemophilia Center, Worcester, MA, USA, [8]Indiana Hemophilia and Thrombosis Center, Indianapolis, IN, USA

OBJECTIVES: Hemophilia is a costly chronic illness. Clotting factor accounts for over 70% of hemophilia costs. We examined health care utilization, factor use and costs in people with hemophilia A from six Hemophilia Treatment Centers in seven states. **METHODS:** Data were obtained prospectively from interviews and chart reviews with 329 patients aged 2 to 65 years enrolled in the Hemophilia Utilization Group Study Part V-A(2005–2007). We analyzed one-year health care utilization (outpatient, emergency room visits, and hospitalization) and total cost of clotting factor dispensed. Factor cost was estimated using average sales price from Medicare Part B. We further examined the association between these variables and clotting factor infusion strategies (episodic(to treat a bleed) versus prophylactic (administrate multiple times each week)) in patients with severe hemophilia using Chi-square test for categorical variables or Wilcoxon rank-sum test for continuous variables. **RESULTS:** Fifty percent of patients were adults; Mean age 9.7 ± 4.5 years for children and 33.7 ± 12.5 years for adults. Two-thirds of patients had severe hemophilia. 97% used clotting factor; 68% of severe patients infused prophylactically. 89% reported using health services at least once: 56% had a comprehensive visit(range:0–3); 31% a clinician visit(range:0–14); 23% saw a physical therapist(range:0–21). 19% had emergency room visits and 15% were hospitalized. Mean cost of clotting factor was $208,548(median:$232,831) per patient-year. In patients with severe hemophilia, average number of hospital days/patient-year was 8(3 for prophylaxis users versus 13 for episodic treatment users, p = 0.14). Patients with severe hemophilia were less likely to have an emergency room visit if they were on prophylaxis(13% vs. 25%, p = 0.047). Mean factor cost was $281,151 per patient-year(median:$224,856) for patients on prophylaxis versus $15 4,855(median:$126,148) for episodic treatment users(p < 0.0001). **CONCLUSIONS:** This study contributes to the growing evidence that prophylactic infusion of clotting factors, compared to episodic treatment, may be associated with decreased health care utilization, including emergency room visits and hospitalizations.

PSY33

PROCESS MEASUREMENT AND CALCULATION IN IV-PCA AT UNIVERSITY HOSPITAL OULU FINLAND

Liwing J[1], Rebmann I[2], Idänpään-Heikkilä JJ[3], Löthgren M[1], Rahkamo L[3], Kraemer M[2], Rautio P[4], Salomäki T[5]
[1]Janssen-Cilag AB, Sollentuna, Sweden, [2]Siemens AG Healthcare Consulting, Erlangen, Germany, [3]Janssen-Cilag Oy, Espoo, Finland, [4]Medicres Oy, Oulu, Finland, [5]Oulu university hospital, Oulu, Finland

OBJECTIVES: To describe and measure intravenous patient controlled analgesia (IV-PCA) processes in postoperative pain management in patients with moderate to severe pain in clinical practice that have undergone surgery at the University Hospital Oulu Finland. **METHODS:** A model was designed and visualized via Swimlane notation. Sub process levels were defined as "education", "purchasing/depreciation/maintenance", "procurement", "supply", "application" and "disposal". Based on these sub process levels, data was collected by two research methods, interviews and measurement forms including patient and staff satisfaction questionnaires. **RESULTS:** Twelve members of Oulu University Hospital personnel with different responsibilities were interviewed to define the roles and activities involved in the entire IV-PCA process. Ten different roles were defined with 151 different activities. The involved roles and the duration of each activity in the sub process levels "supply", "application" and "disposal" were measured from 108 consecutive patients with eight different surgery types. The most common surgery types were back surgery and gynecological laparoscopy. The average duration of IV-PCA use per patient was 41 hours and 39 minutes. The staff spent on average 132 minutes in IV-PCA related activities, of which the nurse spent 91%. The average cost, including material and staff, for 24-hour usage of IV-PCA was €122. The patients found the IV-PCA system easy to operate but hindered them in mobility and they were not able to sleep unhindered. According to the staff the IV-PCA system operated error-free and reliably but hindered the mobilization of the patient. **CONCLUSIONS:** IV-PCA involves many different roles and activities and intertwined sub processes. Therefore the whole system is complex and resource demanding. Comparisons of the results from similar studies at other hospitals will be very useful when trying to optimize the process.

SYSTEMIC DISORDERS/CONDITIONS – Patient-Reported Outcomes Studies

PSY34

IMPACT OF OBESITY ON HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH ASTHMA IN THE USA

Kwon JW[1], Suh K[1], Choi IS[1], Sohn HS[2], Nam EW[1], Barone JA[1]
[1]Rutgers University, Piscataway, NJ, USA, [2]Sook Myung Women's University, Seoul, South Korea

OBJECTIVES: To examine the impact of obesity on health-related quality of life (HRQOL) in patients with asthma. **METHODS:** The data used for the present study was obtained from the 2004–2006 Medical Expenditure Panel Survey (MEPS) data, a comprehensive national representative survey of the U.S. non-institutionalized population. Individuals were included if they were aged 18–74, self report of diagnosed with asthma or diagnosed with ICD-9 code of 493 by their physician, and did not have pregnancy, malignancy, kidney dialysis, or immunodeficiency. Asthma patients were classified as normal (body mass index(BMI):18.5-<25), or obese(BMI:≥30). MEPS measured HRQOL using SF-12 physical component scale (PCS-12), SF-12 mental component scale (MCS-12), Kessler Index (K-6), and Patient Health Questionnaire (PHQ2). The K-6 assesses the person's non-specific psychological distress (higher value means severe mental disability) and the PHQ2 assesses the depression severity. PHQ2 score of ≥3 was used to screen asthma patient with depression. The impact of obesity on HRQOL was estimated using multivariable regression while controlling for patients' demographic, socio-economic, and co-morbidity variables. Data were analyzed using SAS and STATA. **RESULTS:** A total of 5339 asthma patients were identified. Overall, HRQOL in obese patients were significantly lower compared to those of normal weight patients (50.7 vs. 41.9 for PCS-12, 49.0 vs. 47.0 for MCS-12, 3.9 vs. 5.3 for K-6, 0.6 vs. 1.1 for PHQ-2). While controlling for the study variables, QOL were worse if patients were obese, older, female, or less educated, as well as have cardiovascular disease. Proportion of patients with PHQ2 score ≥3 were 10.3% in normal weight and 19.7% in obese patients. **CONCLUSIONS:** Obesity significantly deteriorates quality of life including both physical and mental components in asthma patients. The national health promotion to control weight needs to be emphasized to increase the beneficial effects of HRQL in asthma patients.

PSY35

THE RELATIONSHIP BETWEEN QUALITY OF LIFE, DISABILITY AND PAIN IN PATIENTS WITH FAILED BACK SURGERY SYNDROME

Manca A[1], Eldabe S[2], Buchser E[3], Kumar K[4], Taylor R[5]
[1]University of York, York, UK, [2]James Cook University Hospital, Middlesbrough, UK, [3]EHC-Hospital of Morges, Morges, Switzerland, [4]Clinical Professor of Neurosurgery, Regina, Saskatchewan, Canada, [5]Universities of Exeter and Plymouth, Exeter, UK

OBJECTIVES: Patients with failed back surgery syndrome (FBSS) and chronic neuropathic pain experience levels of health-related quality of life (HRQoL) that are considerably lower than those reported in other areas of chronic pain. Interventions aimed at reducing pain in FBSS patients are expected to bring considerable HRQoL improvements. Using data from the multinational PROCESS trial, we investigated the longitudinal relationship between generic HRQoL – assessed using two instruments often used in clinical trials (i.e. the SF36 and EuroQol5D) – and disease specific outcome measures (i.e. Oswestry Disability Index [ODI], leg and back pain visual analogue scale [VAS]) in neuropathic patients with FBSS. **METHODS:** Multivariate hierarchical regression models to capture the longitudinal trend in the dependent variables (i.e. generic HRQoL), and to assess their relationship with patient baseline variables and clinical history. **RESULTS:** Generic HRQoL was univariately consistently associated with disease specific outcome measures: ODI (correlation coefficient: –0.462 to –0.638) and leg pain VAS (correlation coefficient: –0.165 to –0.436). In multilevel regression analysis, baseline HRQoL and ODI were found to be significant predictors of generic HRQoL (all p < 0.001). Leg pain was predictive of EuroQol5D and the SF36 physical component summary score (both p < 0.001) but not of its mental component summary score (p = 0.201). Baseline socio demographic characteristics (age and gender), clinical history (time since last back surgery and number of back surgeries), location of pain and intensity of back pain were not predictive of generic HRQoL (all p > 0.10). **CONCLUSIONS:** Reduction in leg pain and functional disability is statistically significantly associated with improvements in generic HRQoL. This is the first study to investigate the longitudinal relationship between generic and disease specific HRQoL of neuropathic pain patients with FBSS, using multinational data.

PSY36

THE HEALTH BURDEN OF NEUROPATHIC PAIN: A SYSTEMATIC REVIEW AND META-ANALYSIS OF HEALTH UTILITIES

Taylor RS[1], Jensen M[2], Doth AH[3]
[1]Universities of Exeter and Plymouth, Exeter, UK, [2]University of Washington School of Medicine, Seattle, WA, USA, [3]Medtronic Neuromodulation, Minneapolis, MN, USA

Patients with neuropathic pain (NeuP) report poorer health-related quality of life (HRQoL) and incur higher health care costs than non neuropathic pain patients. Although the impact of NeuP on HRQoL has been the subject of previous reviews,